

## TENDER DATA

<b>Project title:</b>	Appointment of 5G OEMs for a full turnkey solution comprising of design, planning, training, supply, optimisation and implementation of 5G end-to-end solutions, including software and hardware equipment, for a period of 5 years.
<b>Bid no:</b>	<b>SENT-060-2023-24</b>

### 1. BACKGROUND

Sentech is a state-owned information and communication technology company with universal service mandate for broadcast content distribution and broadband access. As such, Sentech holds Individual Electronic Communications Network Service (I-ECNS) and Individual Electronic Communications (I-ECS) licences for the provisioning of telecommunications infrastructure and services.

Sentech intends to appoint one or more 5G OEMs or consortia/ JVs/ Partnerships comprising of at least one 5G OEM on a framework agreement for the design, planning, training, supplying and implementation of 5G end-to-end solutions for consumer, business and industrial markets. Sentech intends to establish framework agreements with suitable entities over a period of 5 years.

The successful service provider (s) will work on a quotation basis, on an “as and when” required basis.

### 2. SUBMISSION OF BIDS and CLOSING

This Bid closes at the stipulated date and time as stated in SBD 1 Notice and Invitation to Bid. Bids must be submitted by hand to the Bid Administrator at SENTECH, Octave Road, Radiokop Ext 3, Honeydew, Johannesburg.

Bidders that choose to submit their bid documents before the closing date and time may do so during working hours only (08:30-15:30).

It is the Bidder’s responsibility to ensure that their bid submissions reach the Bid Administrator before the bid closing time as no late submissions will be accepted.

Telegraphic, telephonic, telex, facsimile, e-mail and late Bids will not be accepted. Proposals may be opened in public. Bidders will be advised of the outcome by letter, facsimile or e-mail.

This is a two-envelope system for Bid Evaluation. Bidders must submit their proposal and all supporting documentation in a sealed envelope, clearly marked as follows:

**Envelope One** “Original Technical Proposal” and one “Copy of Technical Proposal” together with a soft copy in PDF format of an electronic medium e.g. USB etc. The soft copy will consist of a single PDF document containing the complete response. The envelope must contain all information and documents relating to the Bid. (Refer to list of returnable documents).

**No Financial Information must be included in Envelope 1.**

**Envelope Two** “Original Financial Proposal” (Contract Date and Pricing schedule/schedule of rates as applicable) together with 1 copy of “Financial Proposal” together with a soft copy in PDF format of an electronic medium e.g. Compact Disk (CD), USB etc. The soft copy will consist of a single PDF document containing the complete Financial Proposal.

Bidders are required to place the sealed **Envelope 1** together **with** the sealed **Envelope 2** into one sealed envelope or container. The sealed envelope or container must be marked with the following information:

- **For Attention**
- **HEAD OF SUPPLY CHAIN MANAGEMENT**

- **BID REFERENCE NO:** ##
- **TECHNICAL AND FINANCIAL PROPOSALS**
- **INSERT CLOSING DATE AND TIME**
- **BIDDER'S NAME AND ADDRESS**

Bidders that combine their Technical Proposal with the Financial Proposal (or any financial information) will be automatically disqualified and not be evaluated further.

The financial proposal will only be opened and evaluated should the technical proposal be found to be responsive, being that the technical proposal has met the minimum technical evaluation criteria that are set out in the Bid Documents.

The Bidders shall insert a table of contents and bind (ring bind or similar method) the proposal documents and verify the page numbers, as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.

Bidders are required to complete and sign all the returnable documentation (refer to list of returnable documents) and initial all pages, drawings and brochures which are included in the reply as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.

Late submissions will not be considered.

### **3. SIGN AND INITIAL**

Bidders are required to complete and sign the Bid Forms where required and initial the bottom of all pages, drawings and brochures which are included in the submission as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.

Only original signatures will be accepted.

### **4. COMPLETION OF BID DOCUMENTS**

Bidders must ensure that they complete all sections of the Bid Documents as per the requirements in the Bid.

Bidders must use only the Bid documents provided by Sentech. Photocopying of the Bid document is permitted however Bidders must not retype or redraft the Bid documents.

### **5. COSTS OF PREPARING THE BID SUBMISSION**

Bidders shall bear all costs associated with the preparation and submission of the proposals. Sentech shall under no circumstances be held responsible or liable for any costs incurred during the bidding process.

### **6. ADMINISTRATIVE RESPONSIVENESS CRITERIA**

Bidders are required to ensure that they meet all the Administrative Responsiveness Criteria.

### **7. BBBEE CODES AT SENTECH**

Sentech complies with the codes of good practice as prescribed by the DTI, to advance Broad Based Black Economic Empowerment.

## 8. SUBCONTRACTING AS A CONDITION OF BID

The successful Bidder must subcontract a minimum of \_\_\_\_N/A\_\_\_\_% of the value of the contract to \_\_\_\_N/A\_\_\_\_ (specify the designated group targeted).

## 9. TRANSFORMATION PLAN

A transformation plan is a record of activities an entity intends to undertake to improve its BBBEE Level through Ownership, Management and Control; Skills Development; Enterprise and Supplier Development and Socio-Economic Development.

Sentech reserves the right to request a BBBEE transformation plan with clearly defined timelines and milestones if the recommended Bidder does not meet Sentech's transformation goals. These milestones must be achieved over the term of the contract. This transformation plan must be submitted within 10 working days from the written request, failing which Sentech reserves the right to withdraw its appointment of the preferred recommended Bidder.

## 10. LOCAL PRODUCTION AND CONTENT

In the case of designated sectors, where in the award of Bids, local production and content is of critical importance, such Bids will contain a specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.

Does this requirement fall under any designated sector as prescribed by the DTI?		No
If yes, specify the sector		
Specify minimum threshold applicable		

\*Bidders must fill in the SBD6.2 for Local Content and Production

## 11. EVALUATION CRITERIA

The evaluation criteria are stipulated in 18 below. It is the Bidder's responsibility to ensure that it has responded to the evaluation criteria. Failure to meet the evaluation criteria will result in the Bidder not being evaluated further. Bidders must ensure that they have included all supporting documentation required to support their response to the Bid.

## 12. AWARD OF BID/S

Sentech may appoint one or more suppliers, in whole or in part, or not appoint any supplier/s at all, and/or cancel the bid in its entirety, at Sentech's sole and exclusive discretion, in order to satisfy various needs which may be identified, and to manage certain risks associated with the supply of goods or services specified in respect of the Bid.

## 13. ALTERNATIVE/SUBSTITUTE PRODUCTS

In the case of contracts and/or panels which are in excess of 12 (twelve) months, Sentech shall be entitled to consider alternative products and product upgrades during the tenure of the contract and/or panel in order to accommodate new products and upgrades in the market. Bidders are required to bring all such developments to the attention of Sentech for approval. No alternative products may be supplied without Sentech's prior written approval.

## 14. BRIEFING SESSION

Should there be a compulsory briefing session for this Bid, Bidders must ensure that they attend the briefing session and sign the attendance register, as non-attendance or failure to sign the attendance register will automatically disqualify a Bidder from submitting a proposal for this Bid.

All questions raised by Bidders post the briefing session will be consolidated and shared with all Bidders at least seven (7) calendar days prior to closing.

## 15. CLARIFICATION

Enquiries related to Bid documents may be addressed to the Bid Administrator and Supply Chain Official as stated in SBD 1 Notice and Invitation to Bid.

## 16. BID EVALUATION METHOD

This Bid will be evaluated as described in the table below.

<p><b>90/10 system will be followed for Technical and Price offer</b></p>	<p><b>1. Stage 1 – Administrative Responsiveness Evaluation</b></p> <p>All the Technical Proposals will be evaluated against the <b>Administrative responsiveness requirements</b> as set out in the list of returnable documents.</p> <p><b>2. Stage 2 –Technical Evaluation</b></p> <p># Mandatory Evaluation Criteria</p> <p>Proposals that are administratively responsive will be evaluated against the Mandatory Evaluation Criteria set out in Section 19. Bidders must COMPLY with ALL Mandatory Evaluation Criteria. Bidders who fail to comply with all mandatory criteria will not be evaluated further.</p> <p><b>Functional Evaluation Criteria</b></p> <p>Proposals that are responsive and comply with the mandatory evaluation criteria will be evaluated against the Functional Evaluation Criteria set out in Section 19. Bidders must score 120 points (or more) out of a total of 145 points available in the Functional evaluation criteria to qualify for further evaluation. Bidders who fail to obtain the minimum point's score of 120 points or more will not be evaluated further.</p> <p><b>3. Stage 3 – Price and Preference (N/A at this stage)</b></p> <p>Financial Proposals for Qualifying Bidders will be opened and evaluated. Bidder's financial offers and BEE certificates will be ranked according to price and preference points from the highest number of points to the lowest.</p>
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## 17. ADMINISTRATIVE RESPONSIVENESS REQUIREMENTS

To be administratively responsive, Bidders must ensure that they meet all the below mentioned criteria. Bidders that do not meet all the below mentioned criteria may not qualify to be awarded the Bid. Sentech reserves its rights in respect of the below criteria.

- Complete and return all documentation stipulated in the LIST OF RETURNABLE DOCUMENTS.
- All correspondence must be in English.
- Bidders must fill in all sections of this document (where applicable).
- **BLACK INK** must be used when completing the Bid documents.
- Bidders must use only the Bid documents provided by Sentech. Photocopying of the Bid document is permitted however Bidders must not retype or redraft the Bid documents.

- All corrections must be initialled. The use of corrective fluid is strictly prohibited.
- Bidders are required to fill in and sign the Bid Forms and initial all pages, drawings and brochures which are included in the reply as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.
- Bidders must complete an attendance register at each compulsory site meeting attended.
- Appointment of a Bidder will be subject to signing, declaration and submission of SBD 1, 3.1, 3.2, 3.3, 4, 5, 6, 1, 6.2 8, and 9 depending on applicability.
- Complete and sign the Contract Data.
- Should this be a 2 envelope or 2 stage system, Bidders MUST separate the technical proposal from their financial proposal. The technical and financial proposals must be placed in two separate sealed envelopes.

#### 17.1 AUTOMATIC DISQUALIFICATION

Sentech reserves the right to automatically disqualify Bidders from being awarded this Bid. The following will lead to automatic disqualification:

- Failure to submit a financial proposal, if required.
- The Bidder is or has been involved in any act of corruption or fraud or bribery or collusion or attempt to influence any employee of Sentech to award this Bid or any other Bid to it.

#### 18. TECHNICAL RESPONSIVENESS COMPLIANCE

The Technical Evaluation will encompass the evaluation of:

- Mandatory Criteria
- Functional / Technical Criteria

#### 19. TECHNICAL EVALUATION CRITERIA

##### 19.1 Mandatory Eligibility Criteria

The following criteria are mandatory for ALL BIDDERS:

Mandatory Criteria	Eligibility	Attach evidence	Provide the reference page number in your proposal.
1. The bidder should be an OEM of the 5G equipment or a consortium/JV/partnership comprising of at least one OEM.		<ul style="list-style-type: none"> <li>• In the case of an OEM, provide Confirmation of OEM status, preferably on company letterhead.</li> <li>• In the case of a consortium/ JV/ partnership, signed agreements for the purpose of this tender clearly stating the relationship and confirmation of at least one entity with OEM status.</li> </ul>	

**NOTE: Bidders that do not comply with all the above criteria will not be evaluated further.**

## 19.2 Functional Criteria

Item	Functionality criteria	Proof Required	Points
1	<p>The OEM has been cited in the Gartner Magic Quadrant™.</p> <ul style="list-style-type: none"> <li>i. Cited as Leader (20 points)</li> <li>ii. Cited as a visionary or as a challenger (10 points)</li> <li>iii. Cited as niche player (5 points)</li> <li>iv. No citation (0 points)</li> </ul> <p>Note: A bidder may motivate for an alternative competitive positioning methodology and prove global recognition and alignment with Gartner Magic Quadrant™</p>	<ul style="list-style-type: none"> <li>• Proof of citation in Gartner Magic Quadrant™, or</li> </ul> <p>Proof of alternative competitive positioning</p>	20
2	<p>The OEM should provide a full description of their 5G Core architecture and options:</p> <ul style="list-style-type: none"> <li>a) Supports both SA and NSA (5 points)</li> <li>b) Supports Mobile Edge Computing, Network Slicing and applications development (5 points)</li> <li>c) Interoperable with any standardised RAN and 5G core (5 points)</li> <li>d) Cloud native and container-based (5 points)</li> <li>e) Supports private networks, consumer markets and industrial markets (5 points)</li> </ul>	<ul style="list-style-type: none"> <li>• Product description – capabilities and features;</li> <li>• Overview of laboratory and field test;</li> <li>• Overview of deployments completed</li> </ul>	25
3	<p>The OEM should provide a full description of their 5G RAN architecture and options</p> <ul style="list-style-type: none"> <li>a) 5G New Radio (5 points)</li> <li>b) Supports O-RAN architecture and Cloud RAN (5 points)</li> <li>c) Interoperable with any other standardised 5G core (5 points)</li> <li>d) Product range covers macro cells (1 point), microcells (1 point), small cells (1 point), pico cells (1 point)</li> </ul>	<ul style="list-style-type: none"> <li>• Product description – capabilities and features;</li> <li>• Statement of compliance with GSM technical specifications;</li> <li>• Overview of laboratory and field tests;</li> </ul>	20

	<p>point) and DAS(1 point) (Total – 5 points)</p> <p>Note: The bidder may specify other third-party products used to augment its product suite.</p>	<ul style="list-style-type: none"> <li>Overview of deployments completed</li> </ul>	
4	<p>The bidder should give a catalogue of 5G CPEs/ receivers/ gateways/ beacons used with its 5G:</p> <p>a) The catalogue covers a broad range of products for consumer, business and industrial use cases and not limited to the following – such as 5G CPEs (indoor &amp; Outdoor 4 points), receivers (2 points), gateways (2 points) and beacons ( 2 points) (Total points 10)</p>	<ul style="list-style-type: none"> <li>Provide a catalogue or product sheets reflecting the</li> </ul>	<b>10</b>
5	<p>The bidder should provide information about their business and operating models, including structure and partners, in South Africa that would support Sentech's requirements:</p> <p>a) Capability and capacity to design, plan, train, supply, install and support in South Africa (10 points)</p> <p>b) Consulting and integration capacity in South Africa (5 points)</p>	<ul style="list-style-type: none"> <li>Provide evidence and reference information supporting this requirement. In addition, provide a Draft Service Level Agreement.</li> </ul>	<b>15</b>
6	<p>The bidder should provide information showing willingness and initiatives (current and potential) to support proofs-of-concept, field tests, technology localisation and research and innovation in South Africa with Sentech:</p> <p>a) Bidder has provided willingness to participate in proof of concept initiatives (1 points), provide policy framework structures (1 points), and budgetary frameworks (4 points), technology localisation and research &amp; innovation (4 points) to support the activities above (Total Points 10).</p> <p>Note: Bidders must include the appropriate responses as per the evidence column to earn the corresponding points outlined above. Failure to provide the above, the bidder will not be awarded any points (0) points.</p>	<ul style="list-style-type: none"> <li>Indicate internal policies and frameworks supporting such activities;</li> <li>Indicate intents to support such activities, giving activities and budgetary frameworks;</li> <li>Provide evidence and reference information supporting this requirement;</li> <li>Submit R&amp;D capabilities and accomplishments.</li> </ul>	<b>10</b>



7	<p>OSS/BSS: OEM to provide capabilities and not limited to the following;</p> <ul style="list-style-type: none"> <li>b) Automated order and fulfilment activities (5 points),</li> <li>c) Monitoring and intelligent operations and maintenance (5 points),</li> <li>d) Simplified charging and billing (5 points).</li> </ul>	<ul style="list-style-type: none"> <li>• Provide evidence and reference information supporting this requirement.</li> </ul>	<b>15</b>
8	<p>The bidder is requested to submit a high-level design and budgetary costing of a 5G network for each of the scenarios below. The costing should clearly show line items for 5G components and required gateways to other non-5G components. Evaluation will be based on completeness, comprehensiveness, clear budgetary pricing and a proposed roadmap for three to five years:</p> <ul style="list-style-type: none"> <li>• Scenario 1: 5G network in a 20 km<sup>2</sup> flat terrain of a population of 120 000 inhabitants and a density of 6000 people/ km<sup>2</sup>. The network is expected to offer fixed wireless services enabling WIFI to households and public hotspots and to provide a slicing for broadcast content and IOT utility management and other municipality delivery services. (5 points)</li> <li>• Scenario 2: Similar to scenario except that the population is 40 000 inhabitants and the density is 230 people/ km<sup>2</sup>. (5 points)</li> <li>• Scenario 3: multiple settlements (5 or more) depicting characteristics of scenarios 1 and 2, 5 to 10 km apart. User/ subscriber base is expected to remain below 100 000 for two years and rising beyond 100 000 to 500 000 in subsequent years. (10 points)</li> <li>• Scenario 4: Opencast mining with several mining and dump haul trucks, shovels, blast-hole drills, Bucket-wheel/ dragline excavators and dozers. Indicate</li> </ul>	<ul style="list-style-type: none"> <li>• Provide high-level design and budgetary pricing.</li> </ul>	<b>30</b>



	<p>capabilities of providing a 5G solution with the applicable budgetary pricing (10 points).</p> <p>Note: With the above scenarios, the bidder must provide a high-level design and budgetary pricing for maximum points as per the scenario. Failure to provide the above, the bidder will not be awarded any points (0) points.</p>		
<b>Total Points</b>			<b>145</b>

**Table 1: Functional Criteria**

*Total minimum qualifying functional score is 120 points.*

## 20. Evaluation of Price and Preference

This Bid will be evaluated on a points system based on weighted average score for Price and Preference as per Preferential Procurement Framework Act of 2000 (Act 5 of 2000).

## 21. Preference Point allocation – 90/10

Price / Preference	Weighting percentage
<b>Preference:</b>	<b>10%</b>
<b>Price:</b>	<b>90 %</b>
<b>Total must equal:</b>	<b>100%</b>

Sentech will award preference points as follows:

Goal	Points	Evidence required
Historically disadvantaged by unfair discrimination on the basis of Race	5	A valid BBBEE Certificate showing at least 51% black ownership
	2	A valid BBBEE Certificate showing at least 25.1 – 50% black ownership
	1	Black owned company showing at least 5 – 25% black ownership
	0	Below 5%
Historically disadvantaged by unfair discrimination on the basis of Gender (women)	4	A valid BBBEE Certificate showing at least 51% women ownership
	2	A valid BBBEE Certificate showing at least 25.1 – 50% women ownership
	1	A valid BBBEE Certificate showing at least 5-25% women ownership
	0	A valid BBBEE Certificate showing at less than 5% women ownership
Historically disadvantaged by unfair discrimination on the basis of disability	1	A doctor's note confirming disability
<b>Total Points</b>	<b>10</b>	

## 22. Price Calculation 90/10

The following formula will be used to calculate the points for price.

$$P_s = 90 \left[ \frac{1 - (P_t - P_{min})}{P_{min}} \right]$$

Where:

$P_s$	=	Points scored for price of bid under consideration
$P_t$	=	Rand value of bid under consideration
$P_{min}$	=	Rand value of lowest acceptable bid

## Annexure A

**Note: Please populate the following table with estimated cost figures. Note that this information is for budget planning purposes only and will not be used as part of the evaluation process.**

	Item	Description	Amount (ZAR)
1	Radio Access Network (RAN)	Radio Access Network (RAN) - Base Station - 64T64R - 3 Sector-Antenna- Active Antenna Unit, Baseband unit, GPS (Inclusive of Hardware & Licenses).	
2	Outdoor Cabinet	Outdoor Cabinet – Includes Rectifier & Installation and Battery Backup.	
3	Core network		
		Up to 10,000 user base	
		Up to 100,000 user base	
		More than 100,000 user base	
4	Customer Premises Equipment		
4.1		5G Indoor CPE	
4.2		5G Outdoor CPE	
4	Training	5G Training for 20 participants Planning, Operations & Maintenance (RAN & CORE)	
5	Professional Services	Installation, Integration and Support (Indicate the cost and methodology used for pricing – for example 10 RAN base station.	

**23. Declaration of Authority**

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this Bid Data is understood and all requirements will be adhered to.

Name of Bidder	Signature	Date	Designation

## **TABLE 1: REFERENCES**

**Please complete the customer reference table and relevant Contact telephone number and attach reference letters.**

<b>Customer</b>		<b>Service Provided</b>	<b>Contact Person</b>	<b>Contact no.</b>	<b>tel.</b>	<b>Contractual commencement date</b>	<b>Contractual completion date</b>
<b>1</b>							
<b>2</b>							
<b>3</b>							
<b>4</b>							

5						
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<b>Name of Tenderer</b>	<b>Signature</b>	<b>Date</b>